## REMARKS

Amendment to the specification is to correct the site of insertion of the priority claim statement previously submitted in the Preliminary Amendment of April 18, 2001. No new matter is believed to have been added.

Claims 1-4, 7-11, 15-16 and 18-21 are pending. As submitted herewith, Claims 1-4, 7-11 and 15 are amended. Claims 1-4, 7-10 have been amended generally for editorial purposes and consistent with Applicants' restriction election. Support for the amendment of claim 9 with respect to the phrase "wherein the PRO10282 polypeptide is at least 100 amino acids in length" is found in the specification at, *inter alia*, page 25, line 18. Claim 11 is amended for clarity. Claim 15 is amended to correct dependencies due to withdrawal of certain claims.

With respect to all amendments, Applicants have not dedicated or abandoned any unclaimed subject matter and moreover have not acquiesced to any objection and/or rejection made by the Office. Applicants expressly reserve the right to pursue prosecution of any presently excluded claimed subject matter or embodiments in one or more future continuation and/or divisional applications.

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached page is captioned "**Version with markings to show changes made.**"

*Statement of Related Applications*

The following application is related to the present application:

U.S. Application Serial No. 09/901,812, filed 10 July, 2001.

*Status of Claims*

Applicants acknowledge and thank the Examiner for the rejoinder of claims 7 and 8 to Group I.

*Information Disclosure Statement*

In response to the Examiner's statement that no copies of references of the Information Disclosure Statement filed July 9, 2001 (received at the PTO on 7/12/01) have been allocated, Applicants hereby re-submit a copy of the Information Disclosure Statement dated July 9, 2001, Form PTO-1449, and a copy of the 229 references listed therein. A PTO-stamped postcard indicating receipt of copies of the 229 references at the Patent Office in the July 9, 2001 submission is hereby enclosed. Thus, Applicants respectfully submit that the IDS was timely filed under CFR §1.97(b)(3).

The Examiner has noted that the previously-submitted IDS has been placed in the application. With the present re-submission, Applicants hereby request that the information referred to in the present re-submitted IDS be considered, and an Examiner-initialed Form PTO-1449 be returned to Applicants.

*Substitute specification*

In response to the Examiner's statement regarding the substitute specification filed 8/6/01, Applicants respectfully submit that a marked up copy of the substitute specification is not required. The substitute specification submitted 8/6/01 was provided to the Office in response to a Notice to File Missing Parts of Application Under 37 CFR 1.53(f) dated April 2, 2001. In said Notice, the Office requested submission of a substitute specification because the original specification allegedly contained improper margins. According to MPEP 608.01(q), 37 CFR 1.125(a) applies to a substitute specification required by the Office. 37 CFR 1.125(a) does not require a marked up copy of a substitute specification. In contrast, 37 CFR 1.125(b), cited by the Examiner, applies to a substitute specification voluntarily filed by the applicant. See MPEP 608.01(q), page 600-82 (Original Eighth Ed., August 2001). Thus, the substitute specification was timely and properly filed in response to the above-referenced Notice dated April 2, 2001.

However, for the Examiner's convenience, Applicants hereby submit a marked-up copy of the substitute specification, indicating correction of margins. Entry of the substitute specification is respectfully requested.

*Allowable claims*

Applicants note that the Examiner has deemed claim 3 to be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

*Claim Rejections - 35 USC §112, second paragraph*

Claims 1, 4, 9-11, 15, 16 and 18-21 stand rejected as allegedly being indefinite due to the presence of the term "about".

Applicants respectfully traverse.

The use of the term "about" in these claims is clearly permissible under the law. A person skilled in the art would be able to determine the meaning of this term as recited in the claims.

However, solely in order to expedite prosecution, Applicants have amended the claims by deleting the word "about." Solely for the sake of consistency, Applicants have similarly amended claim 2.

Thus, withdrawal of this rejection is respectfully requested.

*Claim Rejections - 35 USC §112, first paragraph*

Claims 1, 7, 15, 16, 18-21 stand rejected under 35 U.S.C. § 112, first paragraph, as allegedly containing subject matter which was not described in the specification in such a way as to reasonably convey to one of skill in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention.

The Examiner contends that an isolated nucleic acid molecule which comprises DNA having at least 80% sequence identity to disclosed sequences do not have sufficient description in the specification as description of species is insufficient to support a highly variable genus. The Examiner further alleges that sequence similarity results in an unpredictable and therefore unreliable correspondence between the newly discovered sequence and a similar biomolecule of known function or expression. In addition, the Examiner asserts that describing a method of preparing a cDNA or even describing the protein that the cDNA encodes, which the Examiner acknowledges the example does, does not necessarily describe the cDNA itself. Applicants respectfully traverse the rejection.

***The Legal Standard:*** The written description requirement requires that an applicant's specification must convey with reasonable clarity to those skilled in the art that, as of the filing date sought, he or she was in possession of the invention. *Vas-Cath Inc. v. Mahurkar*, 19 USPQ2d 1111, 1116 (Fed. Cir. 1991). A written description of an invention involving a chemical genus requires a precise definition, such as by structure, formula ... of the claimed subject matter **sufficient to distinguish it from other materials**. *Univ. of California v. Eli Lilly and Co.*, 43 USPQ2d 1398, 1405 (Fed. Cir. 1997)

for Examination of Patent Applications Under 35 U.S.C. 112, ¶1, "Written Description" Requirement ("the guidelines"), there is a "strong presumption" that an adequate written description of the claimed invention is present when the application is filed. 66(4) *Fed. Reg.* 1099, 1105 (2001); *see also, In re Wertheim*, 191 USPQ 90, 97 (CCPA 1976). The guidelines further state that "[t]he examiner has the initial burden of presenting by a **preponderance of evidence** why a person skilled in the art would not recognize in an applicant's disclosure a description of the invention defined by the claims." 66(4) *Fed. Reg.* at 1107, 191 USPQ at 97, (emphasis added).

Compliance with the written description requirement does not require an applicant to describe exactly the subject matter claimed; rather, the description must clearly allow a person of ordinary skill in the art to recognize that he or she invented what is claimed. *Vas-Cath Inc. v. Mahurkar*, 19 USPQ2d 1111, 1116 (Fed. Cir. 1991). The test is whether the originally filed specification reasonably conveys to a person having ordinary skill in the art that applicant had possession of the subject matter later claimed. *In re Kaslow*, 217 USPQ 1089 (Fed. Cir. 1991). Moreover, in order to have possession of members of a claimed genus, the specification need not describe all of the species that the genus encompasses. *Amgen Inc. v. Chugai Pharmaceutical Co.*, 18 USPQ2d 1016, 1027 (Fed. Cir. 1991).

In view of the legal standard regarding the written description requirement under 35 U.S.C. § 112, first paragraph, in combination with the interpretation of the written description requirement by the United States Patent and Trademark Office as set forth in the Guidelines for Examination of Patent Applications Under 35 U.S.C. 112, ¶1, "Written Description" Requirement, Applicants respectfully submit that the instant specification satisfies the written description requirement because it would be clear to one of skill in the art that Applicants possessed the claimed subject matter at the time of filing the instant application.

***The Analysis:*** The analysis for determining whether a specification provides written description support for the claimed invention may be performed by numerous methods, several of which are described in the guidelines and further exemplified in the Revised Interim Written Description Guidelines Training Materials ("training materials"), as published by the United States Patent and Trademark Office, and available via the United States Patent and Trademark Office's web site (www.uspto.gov). According to the guidelines:

> [t]here is a **strong presumption** that an adequate written description of the claimed invention is present in the specification as filed.... Consequently, rejection of an original claim for lack of written description should be [illegible]

With regard to the rejection of claims 1, 7, 15, 16, 18-21 in the instant application, pages 1105-1107 of the guidelines and Examples 9 and 11 of the training materials are particularly relevant. More specifically, these claims relate to a genus of nucleic acid molecules which comprise DNA having at least 80% sequence identity to (a) a DNA molecule encoding a PRO10282 polypeptide comprising the sequence of amino acid residues from 1 to 667 of Figure 2 (SEQ ID NO:2), or (b) the complement of the DNA molecule of (a); or to a genus of nucleic acid molecules comprising DNA which comprises at least 80% sequence identity to (a) the full-length polypeptide coding sequence of the human protein cDNA deposited with the ATCC on January 11, 2000 under ATCC Deposit No. PTA-1181 (DNA148380-2827), or (b) the complement of the coding sequence of (a).

The guidelines note that the written description requirement for a claimed genus may be satisfied through sufficient description of a representative number of species, when such species are representative of the entire genus. 66(4) *Fed. Reg.* at 1106. The guidelines further describe the concept that description of a representative number of species does not require the description to be of such specificity that it would provide individual support for each species that the genus embraces. *Id.* This concept, which is particularly relevant to the instant rejection, is described and developed in detail in footnote 57 of the guidelines and in Example 11 of the training materials.

Footnote 57 of the guidelines, which relies on *In re Bell*, 26 USPQ2d 1529, 1532 (Fed. Cir. 1993) and *In re Baird*, 29 USPQ2d 1550, 1552 (Fed. Cir. 1994), notes:

> For example..., if an applicant disclosed an amino acid sequence, it would be unnecessary to provide an explicit disclosure of nucleic acid sequences that encoded the amino acid sequence. Since the genetic code is widely known, a disclosure of an amino acid sequence would provide sufficient information such that one would accept that an applicant was in possession of the full genus of nucleic acids encoding a given amino acid sequence.... 66(4) *Fed. Reg.* at 1111.

As noted above, this concept is further described in Example 11 of the training materials. In brief, Example 11 examines whether the written description requirement is satisfied in regards to the following claim:

1. An isolated DNA that encodes protein X (SEQ ID NO:2).

The Example notes that the specification discloses a DNA (SEQ ID NO:1) which encodes protein X (SEQ ID NO:2). Thus, the DNA of SEQ ID NO:1 is a single specie of the genus encompassed by claim 1. Based upon this information, the Examiner [illegible]

genetic code table. One of skill in the art would conclude that applicant was in possession of the genus based on the specification and the general knowledge in the art concerning a genetic coding table.

Thus, both the guidelines and the training materials stand for the proposition that the written description requirement under 35 U.S.C. § 112, first paragraph, is satisfied for claims encompassing a genus related to a sequence (*e.g.* protein X), wherein the sequence is provided, along with a code (*e.g.* the genetic code) which unambiguously would allow one of skill in the art to determine all of the related sequences which would fall within the scope of the genus, even if only a single specie is disclosed. This proposition is further supported by the Federal Circuit's decision in *Univ. of California v. Eli Lilly* wherein the court stated that written description for a chemical genus is satisfied when the specification provides a formula "of the claimed subject matter sufficient to distinguish it from other materials" and wherein such formula would allow one of skill in the art to "identify many of the species that the claims encompass". *Univ. of California v. Eli Lilly and Co.* at 1405, 1406.

Based upon the above, Applicants submit that the instant rejection under 35 U.S.C. § 112, first paragraph, of claims 1, 7, 15, 16, 18-21 is improper. More specifically, instant claims 1, 7, 15, 16, 18-21 encompass a genus related to a sequence, wherein the sequence is provided, along with a formula which would allow one of skill in the art to determine all of the related sequences which would fall within the scope of the genus. The specific sequence is SEQ ID NO:2, and the formula, analogous to the genetic code, is a sequence alignment code as described in the specification, for example BLAST, BLAST-2, ALIGN, ALIGN-2 and Megalign (DNASTAR). One of skill in the art, using the specific sequence and a code would be able to unambiguously determine all of the compounds which fall within the scope of the genus of compounds which comprise DNA having at least 80% sequence identity to (a) a DNA molecule encoding a PRO10282 polypeptide comprising the sequence of amino acid residues from 1 to 667 of Figure 2 (SEQ ID NO:2), or (b) the complement of the DNA molecule of (a); or to a genus of nucleic acid molecules comprising DNA which comprises at least 80% sequence identity to (a) the full-length polypeptide coding sequence of the human protein cDNA deposited with the ATCC on January 11, 2000 under ATCC Deposit No. PTA-1181 (DNA148380-2827), or (b) the complement of the coding sequence of (a). Further similar to the scenario described in Example 11 of the training materials, the present invention provides a specie (as depicted within SEQ ID NO:1), which has been fully reduced to practice.

Moreover, whereas the full scope of the genus in the instant claims relates to compounds which comprise DNA having at least 80% [illegible]

comprises at least 80% sequence identity to (a) the full-length polypeptide coding sequence of the human protein cDNA deposited with the ATCC on January 11, 2000 under ATCC Deposit No. PTA-1181 (DNA148380-2827), or (b) the complement of the coding sequence of (a), compounds falling within the scope of claims similar to claim 1 within Example 11 of the training materials might exhibit only about 67% sequence identity[1]. Thus, the redundancy of the genetic code permits one to hypothesize an enormous number of DNA sequences coding for a protein. *In re Bell* at 1532. Nevertheless, even though an enormous number of compounds might fall within the scope of claim 1 from Example 11 of the training materials, the written description requirement was deemed satisfied.

Therefore, in view of the fact that the guidelines, the training materials and several Federal Circuit decisions (*e.g., In re Bell*; *In re Baird*) determined that claims similar to claim 1 of Examples 9 and 11 of the training materials do not violate the written description requirement, Applicants submit that the instant claims also do not violate the written description requirement. More specifically, the instant specification would convey with reasonable clarity to those skilled in the art that, as of the filing date, Applicants were in possession of the claimed subject matter. The law, as articulated by the Federal Circuit, requires no more. *See, Vas-Cath Inc. v. Mahurkar*, 19 USPQ2d 1111, 1116 (Fed. Cir. 1991). Thus, Applicants respectfully request the Examiner to withdraw this basis for rejection under 35 U.S.C. § 112, first paragraph.

*Claim Rejections - 35 USC §112, first paragraph*

Claims 1, 7, 9, 15, 16, 18-21 stand rejected allegedly because the specification, while being enabling for polynucleotide encoding SEQ ID NO:2 (ie., PRO10282 or Stra6), does not reasonably provide enablement for polynucleotides encoding Stra6 proteins other than the polypeptide of SEQ ID NO:2. Specifically, the Examiner contends that one skilled in the art could not use the invention with the claimed breadth without an undue amount of experimentation. Office Action, pages 6-7.

Applicants respectfully traverse.

Applicants note and agree with the Examiner that the polynucleotide encoding SEQ ID NO:2 is enabled by the specification. However, Applicants disagree with the Examiner's assertion that the disclosure is enabling only for the above described invention. Indeed, Applicants submit that each of the bases for rejection for Claims 1, 7, 9, 15, 16, 18-21 identified in the Office Action is mistaken as a matter of scientific fact and law.

***The Legal Standard.*** With regard to the issue of whether the presently claimed subject matter is enabled by the specification, Applicants first wish to point out that it is a well accepted premise of U.S. patent law that 35 U.S.C. §112, first paragraph, requires only that a patent specification describe to one of ordinary skill in the art how to (a) make and (b) use the claimed invention "without undue experimentation". Moreover, the legal standard for enablement under 35 U.S.C. § 112 requires that "[...] a patent specification must disclose sufficient information to enable **those skilled in the art** to make the claimed invention." (emphasis added) *Hormone Research Foundation, Inc. v. Genentech*, 15 U.S.P.Q.2d 1039, 1047 (Fed. Cir. 1990). Under § 112, as recognized by the Federal Circuit, a specification must teach the skilled artisan to make and to use the invention without "undue experimentation". Thus, as articulated by the Federal Circuit in *In re Wands*, 8 U.S.P.Q.2d 1400, 1404 (Fed. Cir. 1988):

> . . . [e]nablement is not precluded by the necessity for some experimentation such as routine screening. However, the experimentation must be undue. The key word is "undue", not experimentation.

Applicants submit that the instant specification clearly meets the enablement requirement, as articulated by the Federal Circuit and applied by the lower courts and the United States Patent and Trademark Office.

The Examiner acknowledges that, as described in the specification, the polynucleotide SEQ ID NO:1 (which encodes protein of SEQ ID NO:2) is over-expressed in cancer tissues and thus can be used for cancer diagnostics, but appears to base his rejection, at least in part, on the alleged lack of information about overexpression of any other polynucleotides, e.g., polynucleotides having certain % identity, or certain degree of hybridization to the polynucleotide SEQ ID NO:1. Office Action, page 7. Applicants respectfully disagree.

While Applicants agree with the Examiner that the specification teaches that the polynucleotide of SEQ ID NO:1 is over-expressed in cancer tissues and thus can be used for cancer diagnostics, Applicants further submit that the Examiner's contention regarding lack of expression information of other polynucleotides encompassed by the claimed invention does not support an enablement rejection. Under the law enablement, a specification which teaches how to make and *use* the invention in terms which correspond in scope to the claims must be taken as satisfying the enablement requirement unless

reasoning which is inconsistent with the teachings of the specification. Id. at 370. Absent evidence to the contrary, the specification must be assumed to be enabling.

With respect to claims 1, 7, 15, 16, 18-21, Applicants respectfully disagree with the Examiner's reasoning that lack of information about overexpression of any polynucleotides other than that comprising SEQ ID NO:1 is tantamount to lack of teaching of how to use the claimed invention.[1] The specification clearly teaches, and it would be evident to those skilled in the art, that the claimed invention has multiple utilities, one of which being, as the Examiner correctly noted, cancer diagnostics. With respect to the Examiner's contention regarding Applicants' teachings regarding how to use the claimed invention in cancer diagnostics, Applicants respectfully submit that the Examiner has not provided a basis for doubting the teachings of the specification regarding how to use nucleic acid molecules encompassed by the claimed invention other than those comprising SEQ ID NO:1. As the Court pointed out in In re Marzocchi, *supra*, it is incumbent upon the Examiner to explain why one skilled in the art would doubt the truth of statements made in the specification, and provide back up assertions with acceptable evidence or reasoning which is inconsistent with the teachings of the specification. The Examiner merely states that "no information about overexpression of any other polynucleotides, e.g., polynucleotides having certain % identity, or certain degree of hybridization to the polynucleotide SEQ ID NO. 1 is present in the specification." Office Action, page 7. In view of the clear limitations present in the rejected claims, Applicants respectfully submit that the Examiner's assertion on this point does not support an enablement rejection. Applicants further note that in theory and in practical applications, nucleic acid hybridization can occur between molecules with substantial differences in sequence identities. It would be routine for one skilled in the art to identify nucleic acid molecules capable of use for detecting a target polynucleotide.

With respect to claim 9 (and dependent claims thereof), Applicants reiterate the points set forth above. Furthermore, Applicants note that the claimed invention relates to nucleic acid molecules encoding a PRO10282 polypeptide comprising DNA that *hybridizes* to the complement of the nucleic

[1] Applicants note that the Examiner also contends that the specification does not provide specific guidance regarding the specification teaching that Stra6 proteins "may function as receptors for an unknown ligand". The Examiner further alleges that prior art does not guide how to use Stra6 peptides other than natural murine protein PRO10282. In view of Applicants' discussion of the ample specification teachings regarding utility of the claimed invention for various purposes including cancer diagnostics, Applicants submit that the Examiner's contention on this point is not relevant to the instant rejection. Nonetheless, Applicants note that in view of the biological role of native Stra6 protein as taught in the specification, the specification provides ample and adequate guidance for use of the claimed invention, contrary to the Examiner's contention. Furthermore,

acid sequence that encodes amino acids 1 to 667 of SEQ ID NO:2. In view of this, the Examiner's basis for rejecting these claims is clearly untenable.

In view of the above, Applicants respectfully request withdrawal of this rejection.

*Rejection under 35 USC §102 over sequence of GenEmbl, Accession No. AF062476*

Claims 1, 7, 9-11 stand rejected under 35 U.S.C. 102(a) as allegedly being anticipated by the sequence of Database GenEmbl, accession number AF062476, which is a sequence submitted by Bouillet *et al.* The Examiner contends that the referenced sequence shows 82.3% similarity to nucleic acid encoding residues 1-667 of protein SEQ ID NO. 2 of the instant invention. The Examiner further alleges that the referenced sequence will hybridize to nucleic acid encoding residues 1-667 of protein SEQ ID NO. 2, in particular under high stringency[2] conditions, and consequently also reads on the product of claims 9-11.

Applicants respectfully traverse.

The invention of claim 1 (and dependents thereof) relates to an isolated nucleic acid molecule which comprises DNA having at least 80% sequence *identity* to (a) a DNA molecule encoding a PRO10282 polypeptide comprising the sequence of amino acid residues from 1 to 667 of Figure 2 (SEQ ID NO:2), or (b) the complement of the DNA molecule of (a). The phrase "sequence identity", as used in the claims, is defined in the specification (see, for e.g., pages 28-30) and/or well understood in the art. The Examiner's reference to a sequence *similarity* value is not a proper basis for the instant rejection. Applicants further note the discussion in the specification (page 2, lines 7-10) regarding the referenced sequence.

With respect to the rejection of claims 9-11, Applicants note that claim 9 relates to an isolated nucleic acid molecule encoding a PRO10282 polypeptide comprising DNA that hybridizes to the complement of the nucleic acid sequence that encodes amino acids 1 to 667 of Figure 2 (SEQ ID NO:2). Applicants draw the Examiner's attention to specification page 25, lines 20-22, which specifies that PRO10282 variant polypeptides are different from fragments of the murine Stra6 sequence, as disclosed in Bouillet et al., **Mechanisms of Development 63, 173-186 (1997)**. Thus, Applicants respectfully submit that the referenced sequence, which, according to the sequence alignment results provided by the Examiner, is from Bouillet et al. (**Mech. Dev. 63, 173-186 (1997)** and Dev. Biol. 170(2), 420-433 (1995))

Applicants' remarks with this point, clarification from the Examiner is requested and would be greatly appreciated

and allegedly encodes Stra6 of *Mus musculus* origin, does not anticipate claim 9 (and dependent claims thereof).

In view of the discussion above, Applicants respectfully request withdrawal of the instant rejection.

*Rejection under 35 U.S.C. 102(a) over sequence of GenEmbl, Accession No. AAV84436*

Claims 9-11 stand rejected under 35 U.S.C. 102(a) as allegedly being anticipated by the sequence of Database GenEmbl, accession no. AAV84436. The Examiner contends that the referenced sequence shows 92% local similarity to a fragment of nucleic acid SEQ ID NO.1 (i.e., nucleic acid encoding residues 1-667 of protein SEQ ID NO. 2). The Examiner asserts that the referenced nucleic acid will hybridize to nucleic acid encoding residues 1-667 of protein SEQ ID NO. 2, in particular under high stringency conditions[3].

Without conceding the truth of the Examiner's contention, for the sake of expediting prosecution, claim 9 has been amended to recite "wherein the PRO10282 polypeptide is at least 100 amino acids in length." The referenced sequence comprises a nucleic acid sequence that the Examiner asserts to have similarity to nucleotides 1768-2051 of SEQ ID NO.1. Applicants note that nucleotides 49-2049 of SEQ ID NO:1 encodes residues 1-667 of SEQ ID NO:2. Nucleotides 1768-2051 constitutes a sequence that encodes fewer than 100 residues of a terminal end of a polypeptide having residues 1-667 of SEQ ID NO:2. Thus, the instant rejection is rendered moot with this Amendment.

In view of the above, Applicants respectfully request withdrawal of this rejection.

CONCLUSION

Applicants believes that this application is now in condition for immediate allowance and respectfully request that the outstanding rejections be withdrawn and this case passed to issue. No new matter is believed to have been introduced, and entry of these amendments is respectfully requested. Reconsideration and further examination of the claims is respectfully requested.

The Examiner is invited to contact the undersigned at (650) 225-5530 in order to expedite the resolution of any remaining issues.

Respectfully submitted,
GENENTECH, INC.

Date: May 6, 2003

By: _____
Paul Naik, Ph.D.
Reg. No. 49,075

09157
PATENT TRADEMARK OFFICE

## VERSION WITH MARKINGS TO SHOW CHANGES MADE

**In the specification:**

The following paragraph is to be inserted at page 1, line 8 (line numbering per originally filed specification):

This application claims benefit under Title 35, United States Code §119(e) of United States provisional application number 60/228,914 filed August 29, 2000, U.S. provisional application number 60/197,089 filed April 14, 2000, and U.S. provisional application number 60/175,849 filed January 13, 2000.

The paragraph beginning at page 1, line 10 has been amended as follows:

~~This application claims benefit under Title 35, United States Code §119(e) of United~~ States ~~provisional application number 60/228,914 filed August 29, 2000, U.S. provisional application number 60/197,089 filed April 14, 2000, and U.S. provisional application number 60/175,849 filed January 13, 2000.~~ The present invention relates generally to the identification and isolation of novel DNA and to the recombinant production of novel polypeptides having sequence similarity to murine Stra6, a retinoic acid responsive protein. Some of these molecules were earlier designated as "PRO10282", but will hereinafter also be referred to as "Stra6" polypeptides.

**In the claims:**

Per the Examiner's amendment, Claims 7 and 8 have been rejoined to elected Group I.

Claims 1-4, 7-11, and 15 have been amended as follows:

1. An isolated nucleic acid molecule which comprises DNA having at least ~~about~~ 80% sequence identity to (a) a DNA molecule encoding a PRO10282 polypeptide comprising the sequence of amino acid residues from ~~about~~ 1 to ~~about~~ 667 of Figure 2 (SEQ ID NO:2), or (b) ~~a DNA molecule encoding a PRO19578 polypeptide having the sequence of amino acid residues from about 1 to about 658 of Figure 7 (SEQ ID NO: 5), or (c)~~ the complement of the DNA molecule of (a) ~~or (b)~~.

2. The isolated nucleic acid molecule of Claim 1 comprising the sequence of (a) nucleotide positions from ~~about~~ 49 to ~~about~~ 2049 of Figure 1 (SEQ ID NO:1) or (b) ~~nucleotide positions from about 186 to about 2159 of Figure 6 (SEQ ID NO: 4), or (c)~~ the complement of the nucleotide sequence of (a) ~~or (b)~~.

4. The isolated nucleic acid molecule of Claim 1 comprising a nucleotide sequence that encodes (a) the sequence of amino acid residues from ~~about~~ 1 to ~~about~~ 667 of Figure 2 (SEQ ID NO:2), or (b) ~~the sequence of amino acid residues from about 1 to about 658 of Figure 7 (SEQ ID NO: 5)~~ the complement of the sequence of (a).

7. An isolated nucleic acid molecule comprising DNA which comprises at least ~~about~~ 80% sequence identity to (a) the full-length polypeptide coding sequence of the human protein cDNA deposited with the ATCC on January 11, 2000 under ATCC Deposit No. PTA-1181 (DNA148380-2827), or (b) ~~the full-length polypeptide coding sequence of the human protein cDNA deposited with the ATCC on February 23, 2000 under ATCC Deposit No. PTA-1402 (DNA148389-2827-1)~~, or ~~(c)~~ the complement of the coding sequence of (a) ~~or (b)~~.

8. The isolated nucleic acid molecule of Claim 7 comprising (a) the full-length polypeptide coding sequence of the human protein cDNA deposited with the ATCC on January 11, 2000 under ATCC Deposit No. PTA-1181 (DNA148380-2827), or (b) ~~the full-length polypeptide coding sequence of the human protein cDNA deposited with the ATCC on February 23, 2000 under ATCC Deposit No. PTA-1402 (DNA148389-2827-1)~~ the complement of the sequence of (a).

9. An isolated nucleic acid molecule encoding a PRO10282 polypeptide comprising DNA that hybridizes to the complement of the nucleic acid sequence that encodes ~~(a)~~ amino acids 1 to ~~about~~ 667 of Figure 2 (SEQ ID NO:2)~~, or (b) amino acids 1 to about 658 of Figure 7 (SEQ ID NO: 5)~~, wherein the PRO10282 polypeptide is at least 100 amino acids in length.

10. The isolated nucleic acid molecule of Claim 9, wherein ~~(a)~~ the nucleic acid that encodes amino acids 1 to ~~about~~ 667 of Figure 2 (SEQ ID NO:2) comprises nucleotides 49 to ~~about~~ 2049 of Figure 1 (SEQ ID NO:1)~~, and (b) the nucleic acid that encodes amino acids 1 to about 658 of Figure 7 (SEQ ID NO: 5) comprises nucleotides 186 to about 2159 of Figure 6 (SEQ ID NO: 4)~~.

11. The isolated nucleic acid molecule of Claim 9, wherein the hybridization occurs under stringent hybridization and wash

CURRENT CLAIM SET

Per the Examiner's amendment, Claims 7 and 8 have been rejoined to elected Group I.

1. An isolated nucleic acid molecule which comprises DNA having at least 80% sequence identity to (a) a DNA molecule encoding a PRO10282 polypeptide comprising the sequence of amino acid residues from 1 to 667 of Figure 2 (SEQ ID NO:2), or (b) the complement of the DNA molecule of (a).

2. The isolated nucleic acid molecule of Claim 1 comprising the sequence of (a) nucleotide positions from 49 to 2049 of Figure 1 (SEQ ID NO:1) or (b) the complement of the nucleotide sequence of (a).

3. The isolated nucleic acid molecule of Claim 1 comprising the nucleotide sequence of Figure 1 (SEQ ID NO:1).

4. The isolated nucleic acid molecule of Claim 1 comprising a nucleotide sequence that encodes (a) the sequence of amino acid residues from 1 to 667 of Figure 2 (SEQ ID NO:2), or (b) the complement of the sequence of (a).

7. An isolated nucleic acid molecule comprising DNA which comprises at least 80% sequence identity to (a) the full-length polypeptide coding sequence of the human protein cDNA deposited with the ATCC on January 11, 2000 under ATCC Deposit No. PTA-1181 (DNA148380-2827), or (b) the complement of the coding sequence of (a).

8. The isolated nucleic acid molecule of Claim 7 comprising (a) the full-length polypeptide coding sequence of the human protein cDNA deposited with the ATCC on January 11, 2000 under ATCC Deposit No. PTA-1181 (DNA148380-2827), or (b) the complement of the sequence of (a).

9. An isolated nucleic acid molecule encoding a PRO10282 polypeptide comprising DNA that hybridizes to the complement of the nucleic acid sequence that encodes amino acids 1 to 667 of Figure 2 (SEQ ID NO:2), wherein the PRO10282 polypeptide is at least 100 amino acids in length.

10. The isolated nucleic acid molecule of Claim [illegible]

11. The isolated nucleic acid molecule of Claim 9, wherein the hybridization occurs under stringent hybridization conditions.

15. A vector comprising the nucleic acid molecule of any one of Claims 1-4 and 7-11.

16. The vector of Claim 15, wherein said nucleic acid molecule is operably linked to control sequences recognized by a host cell transformed with the vector.

18. A host cell comprising the vector of Claim 15.

19. The host cell of Claim 18, wherein said cell is a CHO cell.

20. The host cell of Claim 18, wherein said cell is an E. coli.

21. The host cell of Claim 18, wherein said cell is a yeast cell.